SOCIAL VALUE AND THE THEORY OF MONEY

The theory presented in *The Value of Money*[1] bears an interesting and in some respects a unique relation to the general theory of value and to existing monetary theories. The purpose is to establish a functional theory of money by the use of a social value concept and a social psychology. "Economic social value is an institutional value, specially weighted and controlled by individuals, classes, and institutions" (p. 484). "The function of economic values is to guide and control the economic activities of men" (p. 27). The problem of the value of money, therefore, is to account for the social value of the dollar in terms of the functions which the dollar performs.

The chief functions of money are performed during the process of dynamic change, and so a functional theory of money must be a dynamic theory. "The main work of money and credit is in effecting 'transitions', bringing about readjustments, enabling society, with little shock, to adapt itself to dynamic change" (p. 392). "To talk about the laws of money 'after the transition is completed' is to talk about the work money will do after it has finished working. For a functional theory of money and credit we must study the obstacles that exist to prevent the fluid market. We must study friction, transitions, dynamic phenomena" (p. 266).

This formulation of the problem makes the adequacy of the theory rest largely upon the character of treatment accorded the central facts of psychology and change. A functional theory of money can be established by the use of a social value concept provided the concept is adapted to the analysis of the institutional facts which are regarded as fundamental. A judgment on the theory, therefore, necessarily involves a decision upon the concept used in the analysis. The larger questions to be raised in connection with the theory are whether the method of argument employed

[1] *The Value of Money*, by B. M. Anderson, Jr. New York: Macmillan, 1917, 8vo, pp. xxviii+610.

is in harmony with the purpose of the theory; whether the presuppositions avowed are the actual working basis of the argument.

Before these questions can be considered, however, it is necessary to present the conclusions reached by the social value theory. This requires, first, a brief reference to an existing controversy in monetary theory; secondly, a sketch of the relations established by the theory between the origin, the functions, and the value of money; and, thirdly, a contrast between the social value doctrine and other monetary theories. Attention may then be turned to the larger issues of method as illustrated in the handling of the problems related to the organization of credit and banking.

I

The social value theory of money endeavors to mediate, at certain points, between two opposing doctrines which it finds in disputed possession of the field. One extreme is the "quantity theory," which regards the purchasing power of money as dependent upon the number of dollars; the other extreme is the "commodity theory," which explains the value of money solely by the value of gold bullion considered as a commodity. These rival theories, as currently formulated, are an aftermath of the political controversy which preceded the adoption of the gold standard. In this controversy a crude quantity theory was turned into a political doctrine. It came to be regarded by some theorists, therefore, as "a most fruitful source of false doctrines,"[1] and they offered in its place a theory which emphasized the dependence of the standard of prices upon the value of gold as a commodity. Other theorists kept their faith in the quantity theory and believed what was needed was a "revision of that venerable doctrine rather than its repudiation."[2] They gave the theory, therefore, a precise expression in an equation of exchange and attempted a statistical verification. To this divided opinion the social value theory addresses

[1] W. A. Scott, *Money and Banking*, 1902, p. 62.

[2] Irving Fisher, *The Purchasing Power of Money*, 1911, p. vii. For an earlier revision, similar in purpose and method, see E. W. Kemmerer, *Money and Credit Instruments in Their Relation to General Prices*, 1906.

itself, and what it has to say is conditioned by a change in the general theory of value which was contemporary with the development of these differences in monetary theory.

The change of emphasis in value theory from cost of production to marginal significance gave the social value theory an opportunity to revise monetary theory from the viewpoint of marginal significance. The "commodity theory," in its fullest presentation, relied on a cost of production theory;[1] the "quantity theory," in its most detailed statistical proof, held that marginal utility could not be applied to the problem of the value of money.[2] Wieser, Schumpeter, Kinley, Davenport, and Wicksteed, each in his own way, had attempted the application of the marginal utility theory to the value of money, but, lacking a social value concept, each in his own way had fallen into the Austrian circle.[3]

[1] J. L. Laughlin, *The Principles of Money*, p. 361: "The general outcome has been a race between the effects of lowered cost of obtaining gold and a lowered expense of producing goods in general, in which the latter has won." This may be placed in contrast with the opposing theory formulated by Fisher in *The Purchasing Power of Money*, p. 246: "It will be seen that the history of prices has in substance been the history of a race between the increase in the media of exchange and the increase in trade, while (we assume) the velocities of circulation were changing in a much less degree. Sometimes the circulating medium shot ahead of trade and then prices rose. Sometimes, on the other hand, circulating medium lagged behind trade and then prices fell."

[2] Fisher, *ibid.*, p. 32.

[3] Wieser, who, according to Anderson, furnishes "the clearest possible case of the Austrian circle," believes that "the value of money depends on its subjective value in exchange, the marginal utility of the goods which are exchanged for it. But these depend on prices. And prices depend, in part, on the value of money itself!" (p. 89). Schumpeter, who escapes criticism at first "by avoiding assertions as to causation" (p. 98), is finally found guilty of falling into a circle invented by Wieser, a "circle as clear as day" (p. 100). Davenport, so it is held, in explaining the logical sequence on the demand side of the price adjustment overlooks the fact that the *prices* as well as the marginal utilities of alternative goods have to be taken into account, and, further, he assumes the value of money. He "is thus doubly assuming value, the thing to be explained!" (p. 114). Wicksteed, though unusually circumspect, is believed finally to have made an "illicit leap from marginal demand price to marginal utility," and thus he "lapses into the circle in its completest form" (p. 116). Others found guilty of logical circles are J. B. Clark, Cairnes, F. A. Walker, Kinley, Nicholson, and Anderson, *loc. cit.*, pp. 13, 59, 62, 111, 132. Anderson believes his own social value theory avoids the circle because it turns "to the concrete whole of social mental life." But, as he suggests elsewhere, this may be regarded as enlarging the circle instead of breaking it. See Anderson, *Social Value*, p. 152.

The social value concept, however, makes it possible, according to Anderson, to keep the logic of marginality out of an otherwise inevitable circularity, and to bring the problem of the value of money safely into touch with the doctrines of marginal significance. By recognizing two marginal significances, first, "the social value of gold bullion, conceived of as a commodity," and, secondly, the "additional value which comes to gold as a consequence of its employment as money" (p. 390), Anderson attempts to mediate between the "commodity theory," which "seems to deny that the money employment has any direct effect in increasing the value of money," and the "quantity theory," which "would utterly divorce the value of money from causal dependence on the stuff of which money is made" (p. 144).

One may approximate the social value theory of money, though without doing full justice to the novelty of its viewpoint and conclusions, by the following process of addition, subtraction, and substitution. Begin with an extreme commodity theory, and substitute for its cost of producing gold a theory of marginal significance, being careful to use the social value variety and not the marginal utility of the Austrians. To this value of gold as a commodity add the value arising from the money-employment—that "modicum of truth which the quantity theory contains" (p. 195); a value, however, which is not proportional to the number of dollars, but is the value of the services attributed to the dollar. The mathematical result is not the complete social value theory of money, but the process gives a fair indication of the relation of that theory to the other monetary theories involved.

II

A sketch of the social value theory will serve to indicate the relations which the theory finds between the origin, the functions, and the value of money, and the influence of credit. A summary of the theory is here presented in bare outline.

The precious metals were differentiated from other commodities and became money because they possessed a superior saleability. History, therefore, supports what logic requires—that

the commodity have value from some non-monetary source before it can serve as money.

The services of money are not all equally important as sources of value. One of them, the "measure of values" function, contributes no value; others, such as medium of exchange function, the "option-bearing" function, the store of value function, and the reserve for credit function, do ordinarily add to the value of money, but in varying degrees and subject to the influences of time and place.

The "measure of values" function, though it is of great social importance, is not a source of value because the service of the dollar as a medium of thought and of expression does not require the actual use of the dollar. Or, to put it another way, thinking in terms of the dollar does not require the ownership of dollars, and the imputation process, being unconcerned about social importances, imputes to the dollar only those values over which ownership gives control. The "measure of values" function yields no differential advantage in favor of the holders of money as against the owners of goods, and thus it is a service the value of which is not appropriable under the institution of ownership.[1]

The medium of exchange function gives the holders of money an opportunity to take advantage of those values created by exchanging. The gains thus made are dependent upon the possession of money and are therefore attributed to the dollar.

The "bearer of options" function, the special privilege which the holder of money has of acting quickly in a rapidly changing market, is another source of value. This function of money is shared with "liquid securities of low yield and stable value, short loans, call loans, or bank-deposits" (p. 425). The share of this service performed by money varies with the fluctuations of "business distrust," an increased burden falling on it during a panic when men convert their securities and deposits into cash, and a

[1] The question remains, for institutional theory, whether the so-called "measure of values" function is a rôle performed by money alone, or whether it is to be attributed in part to other associated institutions such as the system of prices itself. In pecuniary valuation the market "largely dictates the valuations which it afterward equilibrates." See C. H. Cooley, "The Institutional Character of Pecuniary Valuation," *American Journal of Sociology*, January, 1913.

decreased burden when the return of confidence releases money from the service of "option bearer."

The store of value function is properly to be distinguished from the "bearer of options" function, the distinction turning on the possibility of making definite provision for a contingency. If held for a definite contingency it is the store of value function, but since certain types of bonds may often be more advantageously held for that purpose, in present day functioning money itself is less important as a means of storing value than as a "bearer of options."

The reserve for credit function is a phase of the "bearer of options" function, money differing only in degree from liquid assets—the so-called "secondary reserves." The best substitute for a money-reserve is the call loan, with corporate securities as collateral, the great liquidity of that type of loan being due to its impersonal character and to the activity of speculative trade in the collateral. This freedom of substitution in the reserve function means that the part which money plays in bank reserves is not constant and that there is no fixed or normal ratio between bank reserves or money in circulation and bank deposits.

A conceivable limit upon the expansion of bank credit in the *world as a whole* is contained in the total of the world's gold supply, but inside of this limit, which is never reached, there is great flexibility, and the variations are such as to make it impossible to talk of a normal proportionality between gold and credit. Within a given country the causal sequence between reserves and deposits is the reverse of that asserted by the quantity theory. Rising prices lead to increasing trade and to expanding credit, accompanied by a rise in short-time interest rates which draw gold into the country. Therefore, "increasing reserves are a *result* and not a *cause* of increasing loans and deposits" (p. 532).

The effectiveness of the short-time money rates in drawing gold to a country is apparently due to the fact that those rates are an index to the value of the services of money. "There is at any time a demand curve for this money service, manifesting itself in the money market, a demand for the short-time use of money as a tool of exchange" (p. 72). The loan rate charged by the bank, for example, represents a differential, largely due to superior salability,

between bank-credit and the borrower's note, a premium on present money funds, "so much money, for the use of money, for such a length of time" (p. 453). When these rates are relatively high in one market they indicate the high value of money-services in that market, and money funds flow in that direction. These rates "are properly to be considered, not interest on abstract capital, but the rent of a particular capital-good, namely, money" (p. 145). This money-market concept of "money" is intended to include bank-credit.[1]

Bank credit represents a fund of rights in liquid form, and, like other kinds of credit, its chief function is to aid in carrying out the readjustments required by dynamic change. Credit accomplishes this by making "fluid and saleable articles of wealth other than money" (p. 476), thus tending to give to all goods that degree of saleability which money itself possesses. A consequence, therefore, of credit extension is a closing of the gap of saleability between money and other goods, so that when "credit has done its perfect work" (p. 478) gold will cease entirely to function as money and have only the value arising from commodity functions. The differential advantage of money will then have disappeared along with all the value-giving functions of money, for with the coming of static conditions only the measure of values function will remain. The disappearance of the differential through the use of credit causes a general rise in prices brought about by the lowered value of money and the increased values of goods.

The rôle of money and credit in economic theory is to smooth the way for static theory by bringing about the fluid market and by overcoming friction. Their function is to give "verisimilitude to the static theory, to make the assumptions of static theory come true" (p. 263). Since all of the value-giving functions of money and credit are performed only during the continuance of dynamic changes, and since static theory cannot make a logical beginning without assuming the value of money, it follows that "the theory

[1] The important influence upon money-rates of banking as a source of loanable funds is not considered, the discussion of the effects upon the interest rate of an increase in money-capital being confined to the increase of standard coin (pp. 223 and 484, note). The theory differs in this respect from the analysis of the loan-fund by Davenport. See Davenport, *Economics of Enterprise*, chaps. xviii, xix.

of money and credit is essentially a dynamic theory and the notion of 'normal equilibrium' which underlies the quantity theory has no bearing whatever on these fundamental matters" (p. 495).

III

Fundamental as are the differences between the social value theory of money and the quantity theory, there are, however, important similarities in the formulations of the problem which give rise to the respective concepts of social value and of the equation of exchange.[1] Both formulations, for example, find "desirability" an unsatisfactory starting point for the explanation of the value of money, but for different reasons. Anderson finds desirability inadequate, logically and causally, as the explanation of any value; Fisher, though he finds it adequate for other values, believes the degree of desirability unfitted to explain the purchasing power of money, because the desirability of the dollar rests upon its purchasing power. Both theories agree, also, as to the logical necessity of a value prior to particular prices.[2] Anderson finds a "logical resting-place" in the social values antecedent to all prices; Fisher finds it in the dollar of the price-level, which, though it is not temporally antecedent to the particular prices, may be treated as logically independent of and prior to them. Fisher believes "that individual prices cannot be fully determined by supply and demand, money cost of production, etc., without surreptitiously introducing the price level itself,"[3] and so he separates the study of price-levels from the study of particular prices, just as Anderson separates the theory of value from the theory of price. Both of them, therefore, step back of price theory to a concept which is presumably more fundamental, in order to avoid the circularity of reasoning which

[1] As "the most uncompromising of the quantity theorists," Irving Fisher has given that doctrine in *The Purchasing Power of Money* the expression which is selected by Anderson for detailed criticism.

[2] Fisher, *ibid.*, p. 182: "The causation of individual prices can only explain prices as compared among themselves. It cannot explain the general level of prices as compared with money." Anderson speaks of the social value concept as a "causal force, lying behind prices, even though expressed in prices" (p. 87, note).

[3] Fisher, *ibid.*, p. 175.

both believe to be inevitably involved so long as the theory deals with the system of prices directly.

Beyond these similarities in the conception of the problem, however, the agreements end. No quarter is given. Anderson challenges "virtually every contention and every assumption of the quantity theory; gives the doctrine a detailed examination; attempts a statistical refutation of it"; and finally concludes that "the quantity theory is utterly invalid."

It is not evident that the quantity theory need be overthrown in order to show the advantages of the social value theory. The differences in viewpoint and in assumptions may save one theory from being precluded by the other. And since the disagreements arise out of differences in the assumptions they cannot be settled by an argument over the corollaries. In fact, Anderson's attempt to disprove the theory, after granting its assumptions, does not carry conviction because his argument does not stay within the limits imposed by the quantity theory. The ambiguity in the term "transition period," among other difficulties, prevents the issue being clearly joined. Anderson insists that the term as used in the equation of exchange is a confusion between a logical category and an actual period of time. When his refutation, however, does not use the "transition period" in the quantity theory sense, it does not prove the quantity theory to be false, granting all its assumptions. For it is by means of the omnipresent transition period that Fisher's quantity theory escapes the contradiction of his own figures, and remains, as it was in the beginning, a normal tendency.

Equally indecisive is the argument intended to disprove the passiveness of the price-level, and again it is due to a primary difference in the method of argument. The proposition that the price-level is the passive resultant of the other factors is fundamental to the causal theory accompanying the equation of exchange, and a disproof of the proposition on its own assumptions would overthrow the equation of exchange. But Anderson does not proceed on Fisher's basis of separating the study of price-levels from that of particular prices. This separation is essential to the logic of the equation of exchange, and an argument which fails to recognize it does not furnish a disproof. Anderson's argument begins with a

change in particular prices, but this, instead of being regarded as a disproof of the passiveness of the price-level, may be regarded as the influence of particular prices during a transition period. The social value theorist may doubt the fruitfulness of making all the assumptions required by the equation of exchange, but upon those assumptions he has not disproved the quantity theory.

Neither the social value theory nor the equation of exchange is entirely adequate to deal with certain aspects of the monetary problem. Both theories have a common limitation in their belief in the singleness of the value of money. The equation of exchange finds the purchasing power of money expressed in a single average of prices; the social value theory finds it in the single psychological significance of the dollar. But it is characteristic of a general change in prices that the degree of change is not uniform between various groups of prices, and that the change does not reach all commodities simultaneously.

Now it is in the interpretation of such a general change and of its relation to the changing monetary and credit conditions that the monetary problem arises. The lack of uniformity in the change, with its implications as to the values of money, cannot be accounted for by a theory based upon a concept which confines the conclusions to a single value. The prices which are averaged into a price-level make in reality a system of prices, and an inquiry into a general change in prices must include a study of this system with reference to the interdependence of its parts. Both the social value absolute and the single average of the price-level blur and conceal those facts of interdependence and their influences on the direction and rate of change in the values of money; both theories are under the temptation of attributing the working of those influences to other factors which can be brought into the scheme of generalization.

When the attempt is made to give a statistical expression to the social value of money a difficulty arises which is perhaps inherent in the absolute value concept itself. Anderson suggests that a measure of this absolute value can be obtained by constructing an index number from "numerous wholesale prices substantially weighted by wages" (p. 382). In fact, the very index numbers used by Kemmerer and Fisher in their attempts to prove the

quantity theory statistically, though not adapted to their purposes, are said to be "very good" as "*indicia* of changes in the *absolute value* of money." The difficulty with this proposal to measure the social value of money by an index number of prices, becomes evident, however, from a statement made by Anderson in another connection, a statement concerning the relation of the value of money to prices. "Particular prices and general prices may change because of changes in the values of goods, with no change in the value of money. Or, particular prices and general prices may change because of changes in the value of money, with goods remaining constant in value" (p. 389). Now, if this is true, if general and particular prices may change without a change in the value of money, how can it be argued that an *average* of prices may be regarded as an index of the absolute value of money? How can any index number which may vary from either of the values concerned (social value of money and social values of goods) be taken as an expression of the social value of money? Is it true that an absolute value of money can be measured only on the assumption that the values of goods are unchanging; and that the values of the goods, in turn, can be measured only on the assumption of a fixed value of money? And if the social value concept can be given numerical expression only on the basis of these assumptions and within these limitations, how does that fact affect the peculiar advantage which such a concept is held to possess for the analysis of quantitative problems?

Another difficulty arises in Anderson's attempt to distinguish quantitatively between the "original" value of money and the "functional" or "added" value. Money rates are held to express this "functional" value, but not in a way to give a "portion" to be added to a capital value. In the discussion of the gradual appreciation of greenbacks it is held that the value of the money-employment was a factor in bringing them to par before redemption. "This value is, ordinarily, not very great" (p. 147). Later, however, the statement is made "that a considerable part of the value of the standard of value comes from its employment as medium of exchange and as reserve" (p. 328). In the attempt to find how much value is due to the money-form of gold the question is raised

as to the amount of premium which might be expected on gold coin in case of a suspension of free-coinage, with the conclusion that

> in a country where the bulk of the money work is in effecting small transactions, we might expect a considerable agio for coined over uncoined metal. This would be especially true if that country had few facilities for credit substitutes for the coin, particularly for small transactions. In a country like the United States, however, where checks are often drawn for amounts less than a dollar, and where the bulk of gold, or standard money, is to be found, not in circulation but in reserves, one need not anticipate that the medium of exchange function would give a big agio to gold coin, even if free coinage ceased (p. 445).

Finally, in describing "the equilibrium between the value of gold as money and the value of gold in the arts" (p. 450), the conclusion is reached that "we may get some aid in reducing these complexities to familiar terms if we employ the device of assuming an equilibrium between gold in money and gold in arts, without trying to explain in quantitative terms how that equilibrium is arrived at" (p. 453).

And so, the "original" and the "added" values, the "marginal values" in the arts and in money, remain unassigned and unassignable "portions." Throughout the book, whenever the theory faces a quantitative problem it fails. It fails because the measurement of the social value of money by an index of prices cannot be set free from the influence of changes in the absolute values of goods; because absolute value cannot be given separate expression in money terms—the only common numerical expression of values available in the pecuniary order.

IV

Attention may now be given to those problems which involve an analysis of the credit and banking arrangements. Here the problems of liquidity, the theory of banking reserves, and the account of the origin of money carry the argument of the book into a field where the adequacy of the conclusions depends upon the type of social psychology employed and upon an appreciation of the institutional facts. A functional theory of money and credit, which has set for itself the task of bringing the phenomena of the

money market into generalizations consistent with the institutional value of money, will find in this field distinctive problems.

A functional and institutional theory is required by its purpose to emphasize the socially organized character of banking activity. It is a disappointment, therefore, when Anderson's analysis of liquidity fails to give adequate recognition to the way in which the banking and credit systems as a whole condition the operations of any particular bank and affect the liquidity of any single item of credit. The only test of liquidity applied "relates to the items separately, on the assumption that other things are not radically changed" (p. 501). The term "liquidity" is used as meaning "that the loan is made to put through a transaction which will be completed during the term of the loan, and permit the loan to be automatically paid off" (p. 501). But can a test which "relates to the items separately" account for the way loans are "automatically" paid off? The "automatic" character of debt payment is largely dependent upon the general condition of credit. The given loan represents only one link in a chain of financing, and its payment depends upon a sale which can often be made only if the prospective purchaser can obtain the necessary credit. The test proposed asks how readily a *single* bank can reduce its loans. But the ease with which any individual bank can reduce its loans depends largely, in the modern money market, upon how easily another lender can be found. The interdependence of banking and credit processes is such that the liquidity of the banking and credit system is fundamental to the question of the liquidity of a single bank or of a particular credit item. An adequate test of liquidity must include a reference to the banking and credit organization as a whole.

The absence of any test for the liquidity of the system may account for the opinion Anderson holds of the call loan as an especially liquid asset—an opinion which does not appear to be justified by the experience of the banks when viewed as a system. It is held that "stock market collateral loans thus constitute the most perfectly satisfactory sort of bank loan from the standpoint of liquidity" (p. 514). "The banker has no doubt that, with watchfulness, he can always realize the full face value of such a note" (p. 493). But banking experience shows that competitive watchfulness has

not kept the call loan liquid.[1] In the midst of panic, with policies which will not care for them in an emergency, the bankers have had to improvise a method of procedure for dealing with liquidity from the viewpoint of the system. The call loan has served as a method of maintaining reserves for a bank or group of banks largely on the condition that other banks would extend their credit and carry the shifted loans. Under favorable conditions the loan has been shifted from bank to bank in New York, and with rising money rates shifted to London bankers and interior bankers, but repeatedly, when these sources of relief have proved inadequate, the bottom has dropped out of the market, money-pools have been organized as a means of support, and in extreme cases the banks have suspended redemption. In other words, the call loan has been satisfactory as a liquid asset in the New York market, except in those emergencies when the New York market as a whole and upon its own responsibility was in actual need of being liquid.

An inquiry which confines itself to the particular assets of banks cannot give adequate recognition to the dependence of the single bank upon the liquid condition of the system. A theory of the liquidity of the system must include in its generalizations the nature of the organized relationships among banks, the character of the control over the money-reserves of the system, and the policies of the bank or group of banks responsible for that margin of unused lending power by which the shifted loans may be taken over and the expansion of loans in the emergency made possible.

The mechanical separation of the items of credit and the cutting up of the banking organization into unrelated banks leaves the theory at a loss for a functional account of the working of centralized reserves and for a comparative study of banking systems. Take, for instance, the discussion of those "features of the English money market which have made it possible, in the period preceding the war, for English bankers to get on with so little gold. As will appear, it is because English business and financial affairs have been more nearly 'static,' have come nearer to realizing the assumptions of static economic theory, than is true of any other country on earth" (pp. 539–540). That is, by means of credit and the

[1] See Sprague, *History of Crises under the National Banking System*, pp. 84 and 301.

activity of speculators and brokers the goods for sale in the London market have been made so "fluid" that the market approximates the "ideal credit economy" in which "banks' bookkeeping becomes merely a refinement of barter" (p. 543). "The static law of bank reserves is that none are needed" (p. 544).

Doubtless this construction could be placed upon the phenomena of the money market, if the purpose were merely to translate the institutional facts into a value theory terminology. But for the purpose of showing the influence exerted by the organized thought and activity of men, a functional theory must include among these "features of the English money market" the centralized management of the reserves of the system; the banking policy for action in a crisis; and the feature that more gold flows through London than through any other city in the world. This gold is not merely that stream from one part of the world's credit system to another; it includes, also, that new gold which has not yet functioned in reserves and which the Bank of England has peculiar advantages in intercepting when needed. And surely the ability of the world's financial center "to get along with so little gold" cannot be accounted for without reference to the support it has received in successive emergencies from the gold accumulations of the Bank of France. If, as predicted, "we hear less after the war" about the "'inadequacy' of English banking reserves", it will not be because the Bank of England's gold holdings proved sufficient or because her ordinary policies of drawing gold to London were successful, but because in addition to her reserves, which during the period of the war have included the gold at the mouth of the mines in South Africa, she received from the Allies enormous gold contributions after it became evident that the separate and competitive management of reserves was no longer adequate.

The account given of the origin of money may be taken as a final illustration of the method used by the social value theory in the analysis of institutional facts. The historical accuracy of the account, the book insists, is of no importance, as the purpose is merely "to throw light on the present functioning" of money. The attractiveness of the precious metals as ornaments gave them a superior salability in the barter economy. This was recognized

by "sagacious men," who laid by a store of the metals against a rainy day. Being imitated by their neighbors the practice became custom and tradition. The ornament of the savage was adopted as the medium of exchange and the store of value for sagacious men and their imitators, and thus the gold standard was established among civilized mankind.

There need be no complaint at this conjectural account of the origin of the early institution of money, but it cannot serve as a substitute for an inquiry into the development of the current institution. A logically conceived method of transmutation from hypothetical barter to the money economy tells nothing of the contemporary institution of money and of its interrelations with other institutions. The purpose of a functional theory requires an account of the derivation of the present monetary arrangements rather than an explanation of the creation of a medium of exchange among the ancients. To take but a single example, "the present functioning of money" is conditioned by the institutional belief in the unchanging value of the dollar, a fact of social psychology which Anderson's social value theory ignores. This belief is, however, a premise of business activity and of accountancy. Being institutional in character it is an unconscious assumption and affects the conclusions of business men without entering directly into their calculations. The belief in the stability of the dollar is one of the important influences affecting the actual variations in its purchasing power. The social value of money, the control the dollar exercises over the activities of men, and the present functioning of the dollar rest upon the fact that men do not fully recognize the fluctuating value of money.[1] A theory which overlooks so obvious and so important an institutional fact falls short of furnishing a satisfactory functional theory of money.

[1] Walter Bagehot doubted the effectiveness of a rationalized institution as a means of control. "Bagehot," says Leslie Stephen, "had dwelt upon the utility of the 'theatrical' elements of the Constitution. It suddenly comes upon him that plain men will take this invaluable element to be superstition and humbug. When you let out the secret that monarchy is really a part of a stage play, it will cease to be an effective control of life."—*Studies of a Biographer*, III, 185.

V

The general criticism which underlies the foregoing critical remarks is that an inconsistency exists between the purpose of the social value theory and the method of argument employed. Anderson attempts to establish a functional theory of money with a mechanistic logic. In the same mechanical fashion that Fisher studies the variations of the factors in his equation of exchange, one at a time, Anderson invents "a series of hypothetical illustrations to isolate each function, as far as may be" (p. 418). From the mechanical viewpoint there are doubtless advantages in treating the phenomena in this manner—it may even be imperative—but the mechanical viewpoint is not the one avowed by the social value theory. The purpose of the theory raises questions which cannot be answered by the mechanical method. Questions of how the various functions interfere with or reinforce one another in a process where all are involved, of how the service of money in one function is interrupted by the transfer of the dollars to other functions, are questions of mutual dependence. The logic of isolation assigns reasons for each function separately when often the explanation is to be found in the changes of other functions. These questions remain unconsidered, because there is no approach to them by way of a mechanical value theory.

For, after all, the social value dynamic theory is merely an aspect of mechanics. The search is for "a starting-point and a *terminus ad quem*—an equilibrium in which 'mutual reactions' cease to trouble with their endless circle!" (p. 115). The goal of the dynamic period is an equilibrium situation, and the forces at work within it are mechanical forces. Within it "we may see the values not yet in stable equilibrium, but in process of equilibration, with marginal values and prices fluctuating, tending toward a static goal, but hindered by various cross currents, of 'friction,' of uncertainty, etc." (p. 579). The approach is still to the disjoined and the mechanical. The social value theory does not make the phenomena of development and the problems of interdependence an integral part of economic theory. A process of growth cannot be constructed out of a series of transition periods; dynamic theory cannot enliven the static state into a social process.

There is, of course, nothing self-evidently better about viewing the process as one of development rather than of equilibration, just as there may be no inherent superiority of the functional over the mechanical viewpoint. But the mechanical method will not solve the problem which the social value theory of money has set for itself. By the formulation of the problem and by the presuppositions avowed the theory is committed to a functional analysis and a processive method, but the argument is nevertheless mechanical in character and the conclusions come to focus on the cross-section. The theory aspires to be organic, and yet the functions of money are treated as if they did their work in isolation, not in interdependence. Institutions, the central psychological facts in the formulation of the problem, call for an analysis of cumulative relations in time, but cumulative causation is not a sufficient reason in the social value theory.

In the place of a study of the influence of institutions upon one another the theory attempts to bring all the institutions under the single category of social value. Thus institutions evaporate into social values, and the analysis is left without the psychological data it set out to explain. The term "social value" is given both to institutions and to the quality of a good, and somewhere between these two meanings institutions get lost or get beyond the reach of analysis. Social value is apparently made the quality of a good in order to objectify it to the individual. In the light of a revised psychology Anderson concluded that economic utilities ought not to be left in the mind of the individual and so he converted them into an attribute of the commodity, and named them social value. Thus the theory drops the concept of the economic man, who reflected the institutions of the eighteenth century, and adopts the concept of social value which makes the goods reflect the habits of men. Either method is equally fatal to an interpretation of institutions in their own right.

Tested by the treatment accorded the monetary problem the social value concept does not appear to be adapted to the task of establishing a functional theory of money. In order that the individual may be objectively controlled it is not necessary that the institutional value of gold and of money be attached as a quality

to the dollar; for the institutions themselves may be regarded as exercising an objective control over individuals. Anderson, however, places upon the dollar the burden of the whole pecuniary order. He says that during a certain period in history the precious metals had "a high value per unit, since so large a portion of the social energy of motivation attached itself to them" (p. 414). And, again, that "where the mechanic uses a storage battery, charged with electricity, to move material things, the technologist of economic readjustment employs a dollar, charged with social value, which is power over the action of men" (p. 591). Thus the theory obscures the distinction between the value of a unit of the circulating medium and the influence of those pecuniary institutions under whose constraint and guidance the economic process is directed and controlled.

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